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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>12 October 2007</u>.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>25-47</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>25-47</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

1.   This Action is in response to Applicant's arguments filed on October 12, 2007.

Claims 25-47 are now pending in the present application. **This Action is made FINAL.**

Claim Rejections - 35 USC § 112

2.   The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 34-35 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 34 the applicant uses the term "ATM GATIE" to refer to the link utilization limit (Page 4 of 10 Lines 2-4 of claim 34) and later on in the claim relies on a new term "ATM GTIE" to identify and refer to the link utilization limit (Page 4 of 10 Line 5 of claim 34). Also, regarding claim 35 the applicant again invokes the term "ATM GTIE" when referring to the link utilization limit (Page 4 of 10 Lines 1-2 of claim 35).

For the purpose of applying prior art, the examiner will interpret the term "ATM GTIE" as "ATM GATIE".

Claim Rejections - 35 USC § 102

3.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section

351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 28 and 42 are rejected under 35 U.S.C. 102(e) as being anticipated by **Bosloy et al. (US Patent # 6,714,544 B1)**.

Regarding **claim 28**, Bosloy et al. teach a method comprising: generating a signaling message to initiate routing of a virtual circuit connection through a remote peer group (... generating a proxy connection establishment request message for requesting the establishment of the connection between the originating network element and the destination network node, ..." (Column 11 Lines 36-39)) ; generating an information element having a predefined format, the information element representing a link utilization value (the proxy connection establishment request message comprising information identifying the source communications channel" (Column 11 Lines 39-41)); formatting the generated signaling message to contain the information element, the presence of the information element in the predefined format to trigger a router located in the remote peer group to select a link ("The proxy connection establishment request message constructed by the interface specifies the ATM address of the called party and also the port and VPI/VCIs associated with the channels to be used for the connection, enabling the call processor 424 to signal the establishment of the connection across the ATM network 412 ..." (Column 19 Lines 7-12)): for including in the virtual circuit connection according to the link utilization value ("... IE only allowed for the encoding of a VPI and a VCI value, which is suitable for cell relay (e.g. ATM) interfaces." (Column 6 Lines 5-7)).

Regarding **claim 42**, Bosloy et al. teach a system comprising: means for generating a call setup signaling message to establish a virtual circuit connection extending from an originating node ("... generating a proxy connection establishment request message for requesting the establishment of the connection between the originating network element and the destination network node, ..." (Column 11 Lines 36-39)); means for formatting the call setup signaling message (read as a Called Party Number) with an opaque information element (read as a Called Party Soft PVC information element (Column 26 Lines 25-55)), the opaque information element representing a link utilization value (Column 26 Lines 25-55); means for sending the call setup signaling message having the opaque information element (read as a Called Party Soft PVC information element (Column 26 Lines 25-55)) along a path through a network (Fig.2); wherein the opaque information element (read as a Called Party Soft PVC information element (Column 26 Lines 25-55)) is sent through both first routers that are configured to inspect for the opaque information elements and through second routers that are non-configured for said inspection (Fig.3); e) wherein the opaque information element (read as a Called Party Soft PVC information element (Column 26 Lines 25-55)) triggers the first routers to select between links for the virtual circuit connection according to a comparison of the link utilization value to utilization of the links (Fig.3); f) wherein the opaque information element (read as a Called Party Soft PVC information element (Column 26 Lines 25-55)) is forwarded unmodified by the second routers that are non-configured for said inspection (Fig.3).

Claim Rejections - 35 USC § 103

4.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the

claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the

various claims was commonly owned at the time any inventions covered therein were

made absent any evidence to the contrary. Applicant is advised of the obligation under

37 CFR 1.56 to point out the inventor and invention dates of each claim that was not

commonly owned at the time a later invention was made in order for the examiner to

consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g)

prior art under 35 U.S.C. 103(a).

The factual inquiries set forth in *Graham* v. *John Deere Co.*, 383 U.S. 1, 148 USPQ 459

(1966), that are applied for establishing a background for determining obviousness

under 35 U.S.C. 103(a) are summarized as follows:

    1.   Determining the scope and contents of the prior art.
    2.   Ascertaining the differences between the prior art and the claims at issue.
    3.   Resolving the level of ordinary skill in the pertinent art.
    4.   Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 25-26, 33 and 38 are rejected under 35 U.S.C. 103(a) as being

unpatentable over **Igarashi et al. (US Patent # 6,836,464 B2)** in view of **Bosloy et al.**

(US Patent # 6,714,544 B1).

Regarding **claim 25 and 38**, Igarashi et al. teach an apparatus, comprising: control circuitry (read as data processing unit (Fig.2 @ 20); and a memory (Fig.2 @ 40) coupled to the control circuitry (Fig.2 @ 20) comprising instructions executable by the control circuitry (Fig.2 @ 20 "... is controlled by a program" (Column 7, Line 40)), the control circuitry (Fig.2 @ 20) operable when executing the instructions to: receive a call setup signaling message (Fig.2 @ 30) sent by a remote originating node (read as a subscriber (Fig.2 @ 10)) to initiate routing of a virtual circuit connection ("... data send/receive unit 30 receives a connection establishment request (a call request) from the subscriber, the unit 30 also sends the request to the call process unit 23." (Column 8, Lines 5-6) and the PNNI Network Information Process Unit (Fig.2 @ 21)); determine whether a utilization of a local link contained within a peer group of the apparatus corresponds to the link utilization value ("... unit 23 performs setup analysis ... reads a type of weight value which is designated by the subscriber from the subscriber information storage unit." Column 8 Lines 46-49); and control whether the local link is included the virtual circuit connection according to said determination ("The unit 41 stores network structure (namely, network topology), and weight values which are used to select a route and are assigned to the corresponding network link." Column 8 Lines 10-12). However, Igarashi et al. fails to teach to inspect a predefined portion of received call setup signaling message for information formatted as one or more ATM generic transport information elements, and when such information is observed, analyze the observed ATM generic transportation information elements for a link utilization value.

Bosloy et al. teach a system and method to inspect a predefined portion of received call setup signaling message for information formatted as one or more ATM generic transport information elements (read as a Called Party Soft PVC information element (Column 26 Lines 25-55)) ("... generating a proxy connection establishment request message for requesting the establishment of the connection between the originating network element and the destination network node, the proxy connection establishment request message comprising information identifying the source communications channel" (Column 11 Lines 36-41)), and when such information is observed, analyze the observed ATM generic transportation information elements for a link utilization value ("... the information provided in the proxy SETUP message may be used to construct a network SETUP message for requesting the establishment of a S-PVC in the ATM network 412." Column 27 Lines 14-16). It would have been obvious to a person of ordinary skill in the art to combine Bosloy et al. with Igarashi et al. for the purpose of establishing a connection across an ATM network based on certain information elements found on a request message. The motivation being to efficiently transport data across an ATM network.

Regarding **claim 33**, Igarashi et al. teach an apparatus, comprising: control circuitry (read as data processing unit (Fig.2 @ 20); and a memory (Fig.2 @ 40) coupled to the control circuitry (Fig.2 @ 20) comprising instructions executable by the control circuitry (Fig.2 @ 20 "... is controlled by a program" (Column 7, Line 40)), the control circuitry (Fig.2 @ 20) operable when executing the instructions to: receive a call setup signaling message (Fig.2 @ 30) sent by a remote originating node (read as a

subscriber (Fig.2 @ 10)) to initiate routing of a virtual circuit connection ("... data send/receive unit 30 receives a connection establishment request (a call request) from the subscriber, the unit 30 also sends the request to the call process unit 23." (Column 8, Lines 5-6) and the PNNI Network Information Process Unit (Fig.2 @ 21)). However, Igarashi et al. fails to teach to identify whether a target link is a local link contained within a peer group of the apparatus, and when the target link is local, inquire within the peer group for utilization information of the link and directly control inclusion of the target link in a virtual circuit connection according to the utilization information; identify whether the target link is a remote link contained outside the peer group of the apparatus, and when the target link is remote, generate a call setup signaling message to initiate routing of the virtual circuit connection; insert a link utilization limit into a predefined location within the call setup signaling message, the presence of the link utilization limit in the predefined location to trigger a remote node located outside the peer group to control inclusion of the remote target link in the virtual circuit connection according to the link utilization limit.

Bosloy et al. teach a method to identify whether a target link is a local link contained within a peer group of the apparatus ("... the proxy connection establishment request message comprising information identifying the source communications channel" (Column 11 Lines 39-41)), and when the target link is local, inquire within the peer group for utilization information of the link and directly control inclusion of the target link in a virtual circuit connection according to the utilization information ("... the information provided in the proxy SETUP message may be used to construct a network

SETUP message for requesting the establishment of a S-PVC in the ATM network 412."

Column 27 Lines 14-16); identify whether the target link is a remote link contained

outside the peer group of the apparatus, and when the target link is remote, generate a

call setup signaling message to initiate routing of the virtual circuit connection ("...

generating a proxy connection establishment request message for requesting the

establishment of the connection between the originating network element and the

destination network node, ..." (Column 11 Lines 36-39)); insert a link utilization limit into

a predefined location within the call setup signaling message, the presence of the link

utilization limit in the predefined location to trigger a remote node located outside the

peer group to control inclusion of the remote target link in the virtual circuit connection

according to the link utilization limit ("The proxy connection establishment request

message constructed by the interface specifies the ATM address of the called party and

also the port and VPI/VCIs associated with the channels to be used for the connection,

enabling the call processor 424 to signal the establishment of the connection across the

ATM network 412 ..." (Column 19 Lines 7-12)). It would have been obvious to a person

of ordinary skill in the art to combine Bosloy et al. with Igarashi et al. for the purpose of

establishing a connection across an ATM network based on certain information

elements found on a request message. The motivation being to efficiently transport data

across an ATM network.

Regarding **claims 26 and 41**, and **as applied to claims 25 and 38 above**,

Igarashi et al., as modified by Bosloy et al., teach an apparatus wherein the control

circuitry (Fig.2 @ 20) is further operable to: identify a ratio of actual utilization of the link

to the link utilization value ("... subscriber of an ATM exchange sets, for each link, a weight value AW (Administrative Weight) which is used for normal PNNI routing ..." Column 8 Lines 57-59); generate link utilization information (Fig. 2 @ 22) by, at least in part, multiplying the ratio by a cost indicator associated with the local link ("The routing computation unit 22 computes possible routes for all exchanges in the network and determines total weight value for each route by summing up weight values each of which corresponds to a link of a route. And then the unit 22 sends the total weight values to the network information storage unit 41 in the storage unit 40 (step A3)." (Column 8 Lines 31-36)); and_determine whether the local link is included in the virtual circuit connection according to the generated link information ("... the unit 23 gets a plurality of routes between a source ATM exchange and a destination ATM exchange of the call from the routing computation result storage unit 43, and selects a desirable route using the weight values belonging to the type obtained by step A6 (step A7)." (Column 8 Lines 31-36)).

Claim 27 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Igarashi et al. (US Patent # 6,836,464 B2)** in view of **Bosloy et al. (US Patent # 6,714,544 B1)** and further in view of **Lee (US Patent Application Publication # 2003/0118025 A1)**.

Regarding **claim 27**, and **as applied to claim 25 above**, Lee, as modified by Igarashi et al. and Bosloy et al., teach an apparatus (Fig,1 @ 111) wherein the local link is located within a peer group of the apparatus (Fig.1 @ 110) and located outside a different peer group of the originating node (Fig.1 @ 120), and wherein the apparatus

controls inclusion of the local link autonomously in response to receiving the call setup signaling message ("... providing a system and method which manages links of a lower layer needed for multi-layer processing in a PNNI routing protocol ..." (Paragraph [0009] Lines 2-5)).

Claims 29 and 43-44 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Bosloy et al. (US Patent # 6,714,544 B1)** in view of **Hamedani et al. (US Patent # 6,560,242 B1)**.

Regarding **claim 29, and as applied to claim 28 above**, Bosloy et al. teach a method wherein the signaling message is sent using the Private Network to Network Interface (PNNI) protocol ("... the routing employed in the network could be source routing as in the PNNI protocol ..." Column 13 Lines 63-64). However, Bosloy et al. fails to teach the predefined format is a Generic Application Transport Information Element (GATIE) format.

Hamedani et al. teach where the predefined format is a Generic Application Transport Information Element (GATIE) format ("... these parameters are included in the generic application transport information elements (GAT IE) of the set-up message." (Column 6 Lines 4-6)). It would have been obvious to a person of ordinary skill in the art to combine Hamedani et al. with Bosloy et al. for the purpose of establishing the parameters that will be used in a message as to how to link data communication entities across an ATM network. The motivation being to establish data connections on a connection oriented network.

Regarding **claim 43, and as applied to claim 42 above**, Hamedani et al., as modified by Bosloy et al., teach a system wherein the opaque information element is an ATM generic application transport information element ("... these parameters are included in the generic application transport information elements (GAT IE) of the set-up message." Column 6 Lines 4-6).

Regarding **claim 44, and as applied to claim 42 above**, Bosloy et al., as modified by Hamedani et al., teach a system wherein the call setup signaling message is a Private Network to Network Interface (PNNI) protocol setup message ("... the routing employed in the network could be source routing as in the PNNI protocol ..." Column 13 Lines 63-64).

Claims 30-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Bosloy et al. (US Patent # 6,714,544 B1)** in view of **Hamedani et al. (US Patent # 6,560,242 B1)** and further in view of **Soncodi (US Patent # 6,272,139 B1)**.

Regarding **claim 30, and as applied to claim 29 above**, Soncodi, as modified by Bosloy et al. and Hamedani et al., teach a method further comprising sending a soft rerouting message after the virtual circuit connection is established ("...transmit a rerouting message upon the occurrence of the rerouting event ..." Column 2 Lines 34-35), the soft rerouting message including the same or different link utilization value formatted using the GATIE format ("... introducing a variety of information element fields distinguishing rerouting messages from standard PNNI messages and uniquely distinguishing routing segments along a particular connection path." Column 2 Lines 62-65).

Regarding **claim 31, and as applied to claim 30 above**, Soncodi, as modified by Bosloy et al. and Hamedani et al., teach a method wherein the soft rerouting message elicits formation of a new path prior to tear down of an existing path for the virtual circuit connection ("FIG. 2 depicts a procedure 200 occurring during a preemptive end-to-end rerouting i.e., when the old route is cleared before a new route is established." Column 5 Lines 2-5).

Regarding **claim 32, and as applied to claim 31 above**, Soncodi, as modified by Bosloy et al. and Hamedani et al., teach a method wherein the new path retains terminating nodes of the virtual circuit connection but excludes at least one midpoint node belonging to the existing path ("A REROUTING CAPABILITIES IE is inserted in a standard SETUP message to define the set of rerouting capabilities for a connection. Preferably, this parameter provides the activation of the rerouting for this connection, such as a rerouting type and a rerouting reasons (i.e., causes) for the connection." Column 7 Lines 24-28).

Claims 34, 35, 39 and 40 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Igarashi et al. (US Patent # 6,836,464 B2)** in view of **Bosloy et al. (US Patent # 6,714,544 B1)** and further in view of **Chen (US Patent # 5,533,009)**.

Regarding **claim 34, and as applied to claim 33 above**, Bosloy et al., as modified by Igarashi et al., teach an apparatus wherein the control circuitry is further operable to format the link utilization limit as an ATM Generic Application Transport Information Element (GATIE) (read as a Called Party Soft PVC information element (Column 26 Lines 25-55)) included in the call setup signaling message ("... the

information provided in the proxy SETUP message may be used to construct a network

SETUP message for requesting the establishment of a S-PVC in the ATM network 412."

Column 27 Lines 14-16). However, Bosloy et al., as modified by Igarashi et al., fails to

teach the formatting of the link utilization limit as an ATM GATIE to cause remote

devices inspecting ATM GTIEs to observe the link utilization limit and control link

inclusion responsive to the observation.

Chen teaches a bandwidth management system that "... manages a plurality of

virtual data connections within a communications network." (Column 4 Lines 17-19).

Also, Chen teaches that the bandwidth management system can serve as "... a pacing

unit and an enforcement unit" (Column 4 Lines 54-55) that "monitor a connection's

bandwidth usage for compliance with appropriate bandwidth limits and to impose a

policing action on observed violations of those limits." (Column 3 Lines 17-20). It would

have been obvious to a person of ordinary skill in the art to combine the bandwidth

management system of Chen with the system of Bosloy et al., as modified by Igarashi

et al., for the purpose of monitoring the bandwidth limit for links being used to connect to

device(s) on a communication network. The motivation being to achieve a practical real-

time bandwidth management that will guarantee predictable end-to-end grades of

service over a multi-node, multi-carrier network to end application platforms.

Regarding **claim 35, and as applied to claim 34 above**, Bosloy et al., as

modified by Igarashi et al. and Chen, teach an apparatus wherein the formatting of the

link utilization limit as an ATM GTIE (read as a Called Party Soft PVC information

element (Column 26 Lines 25-55)) and the call setup signaling message (read as a

Called Party Number). However, Bosloy et al., as modified by Igarashi et al., fails to teach the ATM GATIE provides undisrupted forwarding of the call setup signaling message through remote devices that do not support controlling link inclusion according to the link utilization limit.

Chen teaches a bandwidth management system that "... manages a plurality of virtual data connections within a communications network." (Column 4 Lines 17-19). Also, Chen teaches that "... traffic shaping may possibly be used in conjunction with a network bandwidth enforcement mechanism by rescheduling a cell's service (in addition to cell discarding or tagging) when a non-compliant cell is observed." (Column 3 Lines 5-8) It would have been obvious to a person of ordinary skill in the art to combine the bandwidth management system of Chen with the system of Bosloy et al., as modified by Igarashi et al., for the purpose of monitoring the bandwidth limit for links being used to connect to device(s) on a communication network. The motivation being to achieve a practical real-time bandwidth management that will guarantee predictable end-to-end grades of service over a multi-node, multi-carrier network to end application platforms.

Regarding **claim 39, and as applied to claim 38 above**, Chen, as modified by Igarashi et al. and Bosloy et al., teaches a bandwidth management system wherein the utilization of the local link corresponds to an amount of capacity that has been reserved on the local link (the bandwidth management system can serve as "... a pacing unit and an enforcement unit" (Column 4 Lines 54-55) that "monitor a connection's bandwidth usage for compliance with appropriate bandwidth limits and to impose a policing action on observed violations of those limits." (Column 3 Lines 17-20)).

Regarding **claim 40, and as applied to claim 38 above**, Chen, as modified by

Igarashi et al. and Bosloy et al., teaches a bandwidth management system wherein the

utilization of the local link corresponds to an amount of capacity that is actually being

used on the local link (the bandwidth management system can serve as "... a pacing

unit and an enforcement unit" (Column 4 Lines 54-55) that "monitor a connection's

bandwidth usage for compliance with appropriate bandwidth limits and to impose a

policing action on observed violations of those limits." (Column 3 Lines 17-20)).

Claim 36 and 37 are rejected under 35 U.S.C. 103(a) as being unpatentable

over **Igarashi et al. (US Patent # 6,836,464 B2)** in view of **Bosloy et al. (US Patent #**

6,714,544 B1) and further in view of **Chen (US Patent # 5,533,009) and Lee (US**

Patent Application Publication # 2003/0118025 A1).

Regarding **claim 36, and as applied to claim 35 above**, Lee, as modified by

Igarashi et al., Bosloy et al., and Chen, teach an apparatus wherein the call setup

signaling message is transferred over a trunk link (Fig.1 @ 130) that couples the peer

group of the apparatus (Fig.1 @ 110) to the remote peer group (Fig.1 @ 120).

Regarding **claim 37, and as applied to claim 36 above**, Lee, as modified by

Igarashi et al. and Bosloy et al., teach an apparatus wherein the call setup signaling

message allows the apparatus to remotely control inclusion of links outside the peer

group of the apparatus independently of whether the apparatus is provided with

messages indicating the utilization of the outside links ("... a system and method which

implements a higher layer of PNNI routing by effectively aggregating link information of

outside links of a lower layer, which affect a PNNI call function in the PNNI routing

protocol at a horizontal link of a higher layer, thereby making multi-layer routing possible and minimizing call failure." (Paragraph [0011])).

Claims 45 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Bosloy et al. (US Patent # 6,714,544 B1)** in view of **Igarashi et al. (US Patent # 6,836,464 B2)**.

Regarding **claim 45, and as applied to claim 42 above**, Igarashi et al., as modified by Bosloy et al., teach a system with a data processing unit (Fig.1 @ 20) further comprising means for selecting between the links based on both the comparison and costs associated with the links ("... the unit 23 gets a plurality of routes between a source ATM exchange and a destination ATM exchange of the call from the routing computation result storage unit 43, and selects a desirable route using the weight values belonging to the type obtained by step A6 (step A7)." Column 8 Lines 50-54).

Claims 46 and 47 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Bosloy et al. (US Patent # 6,714,544 B1)** in view of **Chen (US Patent # 5,533,009)**.

Regarding **claim 46, and as applied to claim 42 above**, Chen, as modified by Bosloy et al., teaches a teaches a bandwidth management system wherein the utilization of the links corresponds to an amount of capacity that has been reserved (the bandwidth management system can serve as "... a pacing unit and an enforcement unit" (Column 4 Lines 54-55) that "monitor a connection's bandwidth usage for compliance with appropriate bandwidth limits and to impose a policing action on observed violations of those limits." (Column 3 Lines 17-20)).

Regarding **claim 47, and as applied to claim 42 above**, Chen, as modified by

Bosloy et al., teaches a teaches a bandwidth management system wherein the

utilization of the links corresponds to an amount of capacity that is actually being used

(the bandwidth management system can serve as "... a pacing unit and an enforcement

unit" (Column 4 Lines 54-55) that "monitor a connection's bandwidth usage for

compliance with appropriate bandwidth limits and to impose a policing action on

observed violations of those limits." (Column 3 Lines 17-20)).

Response to Arguments

5.   Applicant's arguments with respect to claims 25-47 have been considered but are

moot in view of the new ground(s) of rejection.

Conclusion

6.   **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time

policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later

than SIX MONTHS from the mailing date of this final action.

Any response to this Office Action should be **faxed to** (571) 273-8300 **or mailed**

to:

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Hand-delivered responses should be brought to

Customer Service Window
Randolph Building
401 Dulany Street
Alexandria, VA 22314

Any inquiry concerning this communication or early communications from the

Examiner should be directed to Salvador E. Rivas whose telephone number is (571)

270-1784. The examiner can normally be reached on Monday-Friday from 7:30AM to

5:00PM.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's

supervisor, Huy D. Vu can be reached on (571) 272- 3155. The fax phone number for

the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system.   Status information for

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